ABSTRACT OF THE DISCLOSURE

A PAPR reduction method using bit reallocation is disclosed, which is applied in a multi-carrier system. The lowest total transmission power P is achieved by a bit loading algorithm conditioned on the requirement of total D transmission bits per block. When the PAPR (peak to average power ratio) of the block is larger than a predetermined value A, the bit reallocation is performed to add Δd - bit transmitting data to one sub-carrier and subtract Δd -bit transmitting data from another sub-carrier, thereby continuing bit reallocation until the PAPR meets with the system requirement or an iteration number reaches a predetermined maximal number of iteration L.